Review of the Efficacy of OnabotulinumtoxinA (Botox) on Neurogenic Detrusor Overactivity (NDO) patients who have failed sacral neuromodulation (Interstim) therapy

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Introduction:
The effectiveness of Botox injections in patients with NDO who have failed multiple oral anticholinergic agents has been demonstrated in recent literature. We report our preliminary results comparing patients who failed oral agents and neuromodulation to patients who only failed oral agents prior to proceeding to Botox injections. The fourth International Consultation of Incontinence (ICI) currently recommends sacral neuromodulation as a second-line treatment of overactive bladder after failed conservative treatment in both men and women. There is sparse literature about patients who do not receive a therapeutic response to sacral neuromodulation who then proceed to Botox injections.

Materials and Methods:
We reviewed a total of 24 patients who underwent Botox injections between January 2009 and January 2013 for NDO with urge urinary incontinence (UUI). Twelve patients in our review failed at least two anticholinergic therapies and neuromodulation compared to twelve patients who failed anticholinergics prior to Botox. Patients completed voiding diaries assessing the number of incontinent episodes per day, and post-void residuals were measured. All patients underwent urodynamics studies and flow measurement.

Results:
The patients who underwent Botox after neuromodulation had a reduction in incontinent episodes from 4.9 to 1.66 per day compared to the Botox only group which had a reduction from 3.9 to 1.9 incontinent episodes per day. Patients receiving only Botox after failed oral agents reported a higher rate of satisfaction. There was not statistically significant difference in mean bladder capacity or mean peak flow between the two groups. Both groups received two treatments with an average of 178 units of Botox.

Conclusion:
There was not a statistically significant difference between the outcomes of the two groups. Patients who did not have Interstim reported a higher rate of satisfaction. Further studies are needed to define variables that can be used by practitioners to assess treatment options for refractory NDO.

References: